

Preventing Opioid Overdose with Education and Naloxone Rescue Kits

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Association for Medical Education and Research in Substance Abuse (AMERSA)



Alexander Y. Walley, Disclosures

- The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:
 - Consultant for Social Sciences Innovation Corporation which is developing a training module for first responders via a NIDA SBIR grant
- My presentation will include discussion of "off-label" use of the following:
 - Naloxone is FDA approved as an opioid antagonist
 - Naloxone delivered as an intranasal spray with a mucosal atomizer device has not been FDA approved and is off label use
- Funding: CDC National Center for Injury Prevention and Control 1R21CE001602

The contents of this activity may include discussion of off label or investigative drug uses. The faculty is aware that is their responsibility to disclose this information.

Planning Committee, Disclosures

AAAP aims to provide educational information that is balanced, independent, objective and free of bias and based on evidence. In order to resolve any identified Conflicts of Interest, disclosure information from all planners, faculty and anyone in the position to control content is provided during the planning process to ensure resolution of any identified conflicts. This disclosure information is listed below:

The following developers and planning committee members have reported that they have no commercial relationships relevant to the content of this module to disclose: PCSSMAT lead contributors Maria Sullivan, MD, PhD, Adam Bisaga, MD; AAAP CME/CPD Committee Members Dean Krahn, MD, Kevin Sevarino, MD, PhD, Tim Fong, MD, Robert Milin, MD, Tom Kosten, MD, Joji Suzuki, MD; AMERSA staff and faculty Colleen LaBelle, BSN, RN-BC, CARN, Doreen Baeder and AAAP Staff Kathryn Cates-Wessel, Miriam Giles and Blair-Victoria Dutra

Frances Levin, MD is a consultant for GW Pharmaceuticals and receives study medication from US Worldmed. This activity's planning committee has determined that Dr. Levin's disclosure information poses no bias or conflict to this presentation.

All faculty have been advised that any recommendations involving clinical medicine must be based on evidence that is accepted within the profession of medicine as adequate justification for their indications and contraindications in the care of patients. All scientific research referred to, reported, or used in the presentation must conform to the generally accepted standards of experimental design, data collection, and analysis. Speakers must inform the learners if their presentation will include discussion of unlabeled/investigational use of commercial products.

Educational Objectives

- At the conclusion of this activity participants should be able to:
 - Explain the epidemiology of overdose
 - Explain the rationale for and scope of overdose education and naloxone distribution (OEND) programs
 - Incorporate OEND into medication-assisted treatment settings
 - Educate patients about overdose risk reduction
 - Prescribe naloxone rescue kits

Target Audience

 The overarching goal of PCSS-MAT is to make available the most effective medication-assisted treatments to serve patients in a variety of settings, including primary care, psychiatric care, and pain management settings.

Accreditation Statement

 This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of American Academy of Addiction Psychiatry (AAAP) and Association for Medical Education and Research in Substance Abuse (AMERSA). American Academy of Addiction Psychiatry is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Designation Statement

- American Academy of Addiction Psychiatry designates this enduring material educational activity for a maximum of 1 (one) AMA PRA Category 1 Credit™. Physicians should only claim credit commensurate with the extent of their participation in the activity.
 - Date of Release June 24, 2014
 - Date of Expiration June 24, 2017

Participation in this CME Activity

- In order to complete this online module you will need Adobe Reader. To install for free click the link below:
 - http://get.adobe.com/reader/
- You will need to complete a Post Test. You will then be directed to a module evaluation, upon completion of which you will receive your CME Credit Certificate or Certificate of Completion via email.

Receiving your CME Credit or Certificate of Completion

Upon completion of the Post Test:

- If you pass the Post Test with a grade of 80% or higher, you will be instructed to click a link which will bring you to the Online Module Evaluation Survey. Upon completion of the Online Module Evaluation Survey, you will receive a CME Credit Certificate or Certificate of Completion via email.
- If you received a grade lower than 79% on the Post Test, you will be instructed to review the Online Module once more and retake the Post Test. You will then be instructed to click a link which will bring you to the Online Module Evaluation Survey. Upon completion of the Online Module Evaluation Survey, you will receive a CME Credit Certificate or Certificate of Completion via email.
- After successfully passing, you will receive an email detailing correct answers, explanations and references for each question of the Post Test.

Case: 29 yo woman presents to clinic for buprenorphine treatment

- Age 18, an accomplished athlete with collegiate prospects
 - When she tore her ACL she was prescribed opioids after surgery
 - Developed opioid addiction by 6 months
 - Age 20, injection heroin daily, out of college
- Ages 20-26, multiple detox and residential programs
 - Not able to sustain >3 months without relapse
- Age 26, pregnant at her last detox and transferred to methadone
 - Able to stop using heroin, engage in 12-step
 - Delivered a healthy baby, breastfed, retained custody
- Age 28, she tapered off of methadone clinic
 - Wanted more time with the baby and to try to work
 - Boyfriend incarcerated for selling drugs
 - Relapsed, lost custody, now seeking treatment with buprenorphine

Case: 29 yo woman on buprenorphine treatment

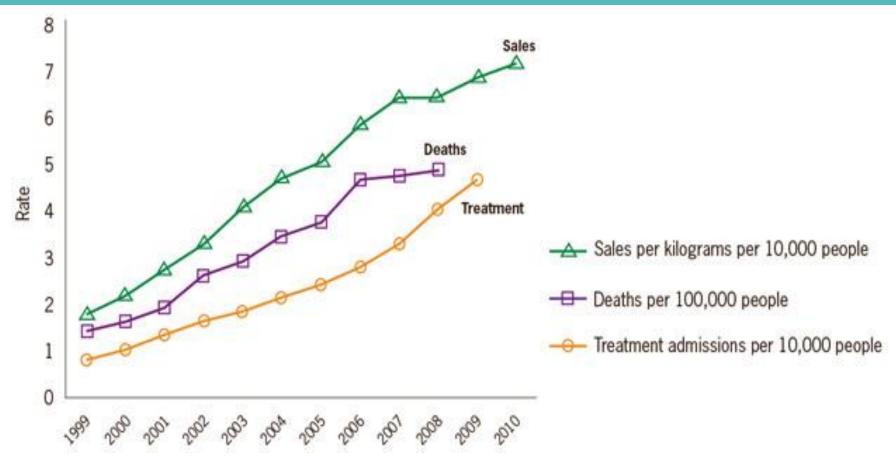
- Age 29-30: Buprenorphine treatment is started and the patient responds well
 - Regular clinic visits with urine tox only positive for buprenorphine
 - Re-engages in 12-step program and her family
 - Works with child protection to regain custody
- Age 30: Hospitalized for overdose and admitted to intensive care
 - Her boyfriend had been released from jail and returned to stay with her
 - He relapsed and overdose on heroin on the 3rd night,
 - Packed his underwear with ice, tried to rescue breathe but did not respond, so she called 911 and they were unable to save him
 - Child protection was notified about the incident and they removed her son from the home
 - She stopped buprenorphine, relapsed to heroin, alcohol, and street benzodiazepines

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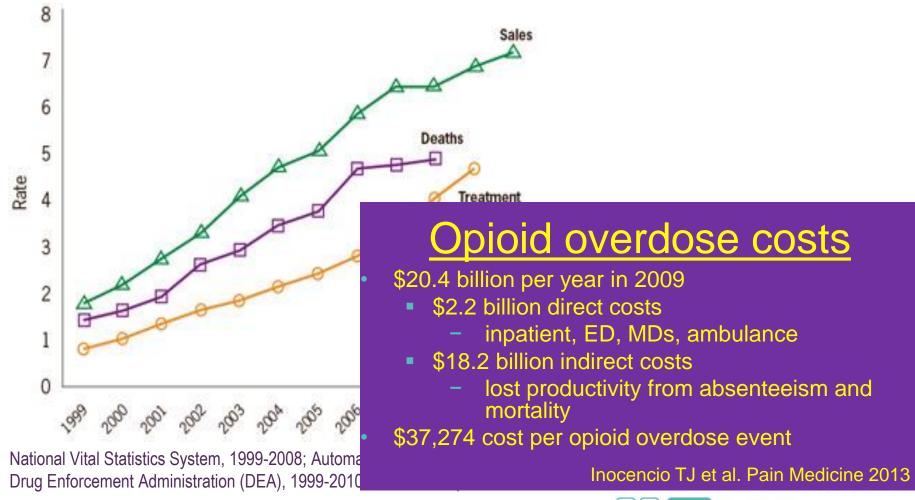
How could overdose prevention improve this case?

Prescription opioid sales, deaths and treatment: 1999-2010

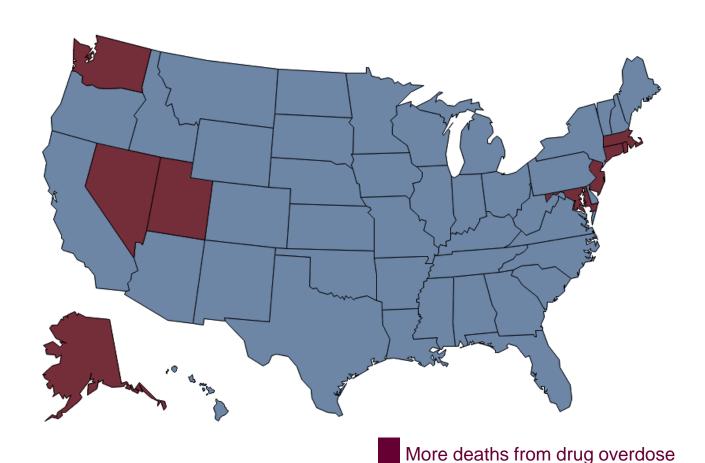


National Vital Statistics System, 1999-2008; Automation of Reports and Consolidated Orders System (ARCOS) of the Drug Enforcement Administration (DEA), 1999-2010; Treatment Episode Data Set, 1999-2009

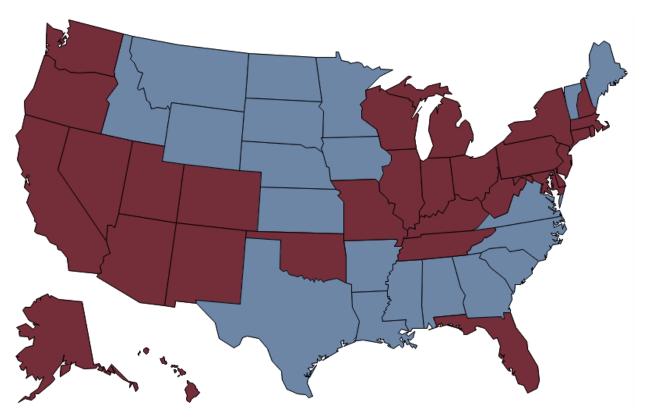
Prescription opioid sales, deaths and treatment: 1999-2010



Leading cause of injury death: Drug overdose deaths outnumbered motor vehicle traffic deaths in 10 states in 2005

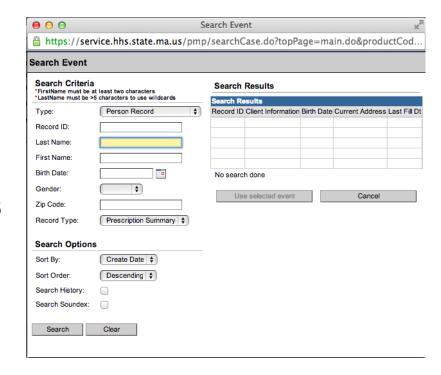


Leading cause of injury death: Drug overdose deaths outnumbered motor vehicle traffic deaths in 31 states in 2010



More deaths from drug overdose

- Prescription monitoring programs
 - Paulozzi et al. Pain Medicine 2011
- Prescription drug take back events
 - Gray and Hagemeier. JAMA Intern Med 2012
- Safe opioid prescribing education
 - Albert et al. Pain Medicine 2011; 12: S77-S85
- Opioid agonist treatment
 - Clausen et al. Addiction 2009:104;1356-62
- Supervised injection facilities
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www.scopeofpain.com www.opioidprescribing.com

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Methadone Treatment Marks 40 Years

Bridget M. Kuehn

ORTY YEARS AND COUNTLESS POlitical firestorms after it was first introduced, methadone maintenance for the treatment of opioid addiction remains a standard therapy in the field of addiction treatment.

The publication on August 23, 1965, of positive results from a small clinical trial of methadone as a treatment for heroin addiction in JAMA marked a sea change in the treatment of addiction (Dole and Nyswander. IAMA, 1965; 193:646-650). The study, conducted at Rockefeller University in New York City by Vincent P. Dole, MD, and the late Marie E. Nyswander, MD, suggested that a medication could be used to control the cravings and withdrawal that often lead to relapse in individuals with opioid addiction who attempt to quit.

The work, along with subsequent research by Dole, an endocrinologist, Nyswander, a psychiatrist, and colleagues established the concept of opioid addiction as a chronic disease, similar to diabetes, that as such required

now head of the Laboratory of the Biology of Addictive Diseases at Rockefeller University, explained that work conducted by the group in 1964 and published in 1966 established that methadone blocked the effects of heroin and stabilized patients, who prior to treatment oscillated between feeling



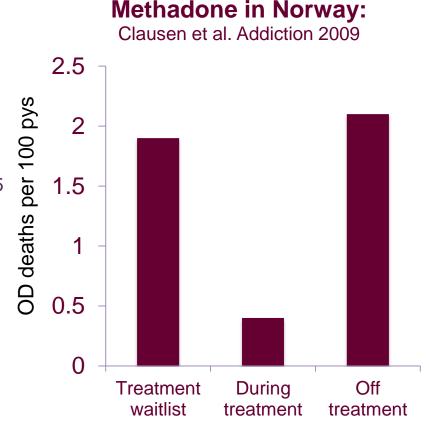
done treatment, the ap always struggled for accep the forces of public opini tics. "There is a stigma as tions, addicts, and-sadly providers," said Kreek, a supporter of the methado

"THE FARM"

Methadone maintenance resented a reversal of the ti approach to treating dru said David F. Musto, MD turer at Yale and expert policy. A 1919 Supreme sion had established tha alone did not justify phys ing addicts with opioids. Be cision, some physicians ha acting opioids to treat indi opioid addiction.

The Drug Enforcement tion, in fact, considered Do illegal and had threatened him prior to the 1965 pub defy the US government wa litical courage," said Jeron who became the first natio

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SAMHSA Overdose Toolkit

SAMHSA Opioid Overdose **TOOLKIT: Information for Prescribers** store.samhsa.gov/product/Opio id-Overdose-Prevention-Toolkit/SMA13-4742





JUL 1 5 2013

Dear Colleague

Many of you will remember the period from 2005 through 2007 when illicit fentanyl-laced heroin caused a great number of overdose deaths. That was not the first time illicit fentanyl, also called fentanyl analogues, entered the drug market, and likely will not be the last. Recently, small clusters of overdoses and overdose fatalities in a variety of communities, mostly in the eastern United States, have raised alarm. Little is fully known about the situation but it appears fentanyl analogues are involved in at least some of the cases, and may be contaminating both heroin and cocaine. More information about the current situation has been published by the CDC as a health advisory.

This appearance of fentanyl analogues occurs against the backdrop of increasing overdose fatalities due to high rates of opioid prescribing and misuse, as well as individuals transitioning to heroin as prescription pharmaceuticals become more restricted. Whether the fentanyl analogues persist and spread or not, the situation with regard to opioid overdose and fatalities is desperate. For example, the CDC Vital Signs released on July 2, 2013, reports that although more men die from prescription painkiller overdoses, the gap between men and women is closing. The number of prescription painkiller overdose deaths increased fivefold among women between 1999 and 2010.

Please reproduce and distribute the appended fact sheet in the manner most appropriate and effective for your community to bring this critical information to first responders, emergency room personnel, local health care providers, the recovery community, and the public at large. At the same time you may wish to encourage the prescription of naloxone, a non-abusable, short-term antidote to opioid overdose, to high risk individuals such as those undergoing induction to opioid agonist therapy or completing detox. Simple strategies may save someone's life, such as not using drugs alone, using a smaller amount if the drug is from an unfamiliar source, and avoiding the use of more than one substance at a time, including alcohol. Overdose should be suspected if someone is having difficulty staying awake or speaking, does not fully awaken with stimulus, or has a bluish color to lips or nails. Until the individual can be transported or someone arrives with naloxone, by-standers should provide rescue breathing.

Recent research has demonstrated that availability of both naloxone and opioid agonist therapy is strongly associated with decreases in opioid overdose fatalities. SAMHSA can provide additional information and guidance to meet the needs of the people you serve. Please contact Dr. Melinda Campopiano, M.D., at (240) 276-2701 or melinda.campopiano@samhsa.hhs.gov for assistance.

H. Westlev Clark, M.D., J.D., M.P.H., CAS, FASAM

Center for Substance Abuse Treatment

Enclosure

Behavioral Health is Essential To Health . Prevention Works . Treatment is Effective . People Recover



SAMHSA Overdose Toolkit

SAMHSA Opioid Overdose **TOOLKIT:**

Information for Prescribers

Consider prescribing naloxone along with the patient's initial opioid prescription

store.samhsa.gov/product/Opio id-Overdose-Prevention-Toolkit/SMA13-4742







JUL 1 5 2013

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Public Policy Statement on the Use of Naloxone for the Prevention of Drug Overdose Deaths

Adopted by ASAM Board of Directors April 2010

 "ASAM supports the increased use of naloxone in cases of unintentional opioid overdose, in light of the fact that naloxone has been proven to be an effective, fast-acting, inexpensive and non-addictive opioid antagonist with minimal side effects... Naloxone can be administered quickly and effectively by trained professional and lay individuals who observe the initial signs of an opioid overdose reaction."

About Naloxone

- Naloxone reverses opioid-related sedation and respiratory depression = pure opioid antagonist
 - Not psychoactive, no abuse potential
 - May cause withdrawal symptoms
- May be administered IM, IV, SC, IN
- Acts within 2 to 8 minutes
- Lasts 30 to 90 minutes, overdose may return
- May be repeated
- Narcan® = naloxone



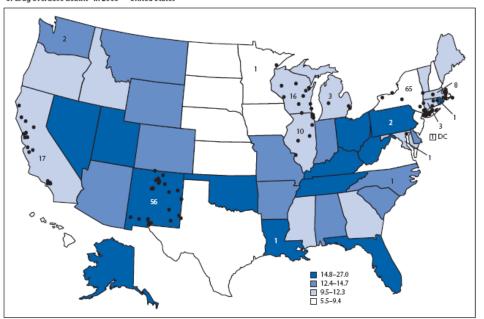
Rationale for overdose education and naloxone rescue kits

- Most opioid users do not use alone
- Known risk factors:
 - Mixing substances, abstinence, using alone, unknown source
- Opportunity window:
 - Opioid overdoses take minutes to hours and is reversible with naloxone
- Bystanders are trainable to recognize and respond to overdoses
- Fear of public safety



Overdose education and naloxone rescue kits

FIGURE 2. Number (N = 188) and location* of local drug overdose prevention programs providing naloxone in 2010 and age-adjusted rates† of drug overdose deaths in 2008 — United States



^{*} Not shown in states with fewer than three local programs.

| | 2010 |
|-----------------|--------|
| States w/ OENDs | 15 |
| Programs | 188 |
| People enrolled | 53,032 |
| OD rescues | 10,171 |

Wheeler E et al. Morb Mortal Wkly Rep 2012;61:101-5.

[†] Per 100,000 population.

Source: National Vital Statistics System. Available at http://www.cdc.gov/nchs/nvss.htm. Includes intentional, unintentional, and undetermined.

Evaluations of overdose education and naloxone distribution programs

Feasibility

- Piper et al. Subst Use Misuse 2008: 43; 858-70
- Doe-Simkins et al. Am J Public Health 2009: 99: 788-791
- Enteen et al. J Urban Health 2010:87: 931-41
- Bennett et al. J Urban Health. 2011: 88; 1020-30
- Walley et al. JSAT 2013; 44:241-7 (Methadone and detox programs)

Increased knowledge and skills

- Green et al. Addiction 2008: 103;979-89
- Tobin et al. Int J Drug Policy 2009: 20; 131-6
- Wagner et al. Int J Drug Policy 2010: 21: 186-93

No increase in heroin use; may be an increase in drug treatment entry

- Seal et al. J Urban Health 2005;82:303-11
- Doe-Simkins M et al. BMC Public Health 2014; 14: 297

Reduction in overdose in communities

- Maxwell et al. J Addict Dis 2006:25; 89-96
- Evans et al. Am J Epidemiol 2012; 174: 302-8
- Walley et al. BMJ 2013; 346: f174
- Cost-effective Coffin and Sullivan. Ann Intern Med. 2013; 158: 1-9.
 - \$438-\$14,000 (best-worst case scenario) for every quality-adjusted life year gained



Massachusetts Department of Public Health Enrollments and Rescues: 2006-2013

- **Enrollments**
 - >22,000 individuals
 - 17 per day
- **AIDS Action Committee**
- **AIDS Project Worcester**
- AIDS Support Group of Cape Cod
- Brockton Area Multi-Services Inc. (BAMSI)
- Boston Public Health Commission
- **Greater Lawrence Family Health Center**
- Holyoke Health Center
- Learn to Cope
- Lowell House/ Lowell Community Health Center
- Manet Community Health Center
- **Health Innovations**
- Seven Hills Behavioral Health
- **Tapestry Health**
- SPHERE

- Rescues
 - >2,600 reported
 - 2.4 per day











INPEDE OD

(Intranasal Naloxone and Prevention EDucation's Effect on OverDose)

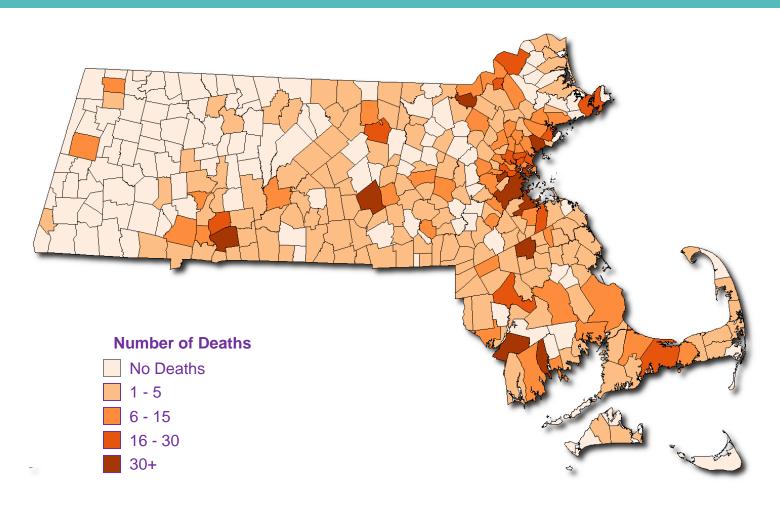
Study

Objective:

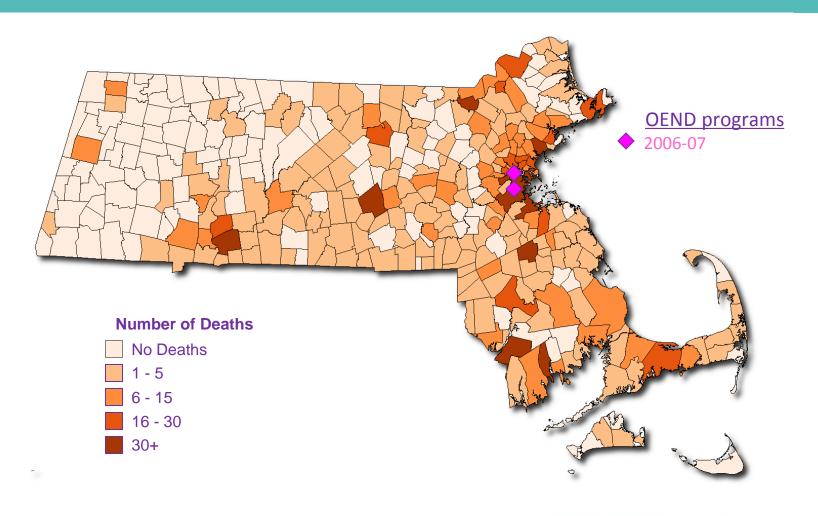
Determine the impact of opioid overdose education with intranasal naloxone distribution (OEND) programs on fatal and non-fatal opioid overdose rates in Massachusetts

Walley et al. BMJ 2013; 346: f174.

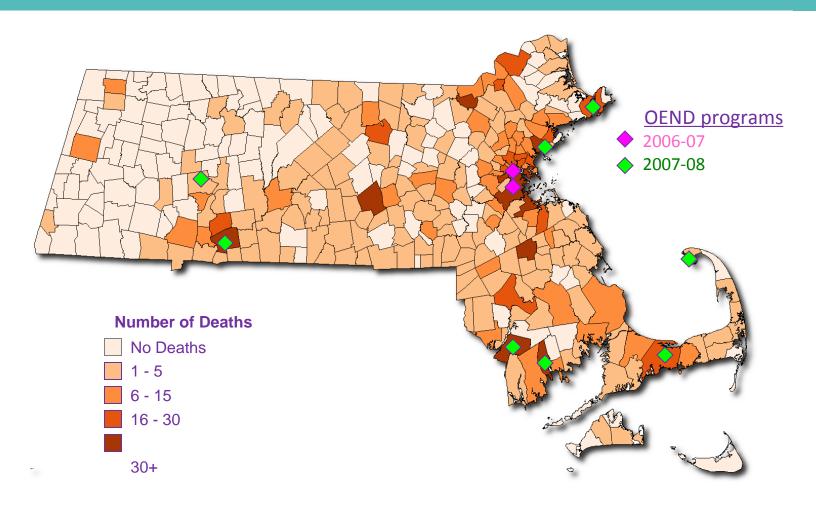
Opioid Overdose Related Deaths: Massachusetts 2004 - 2006



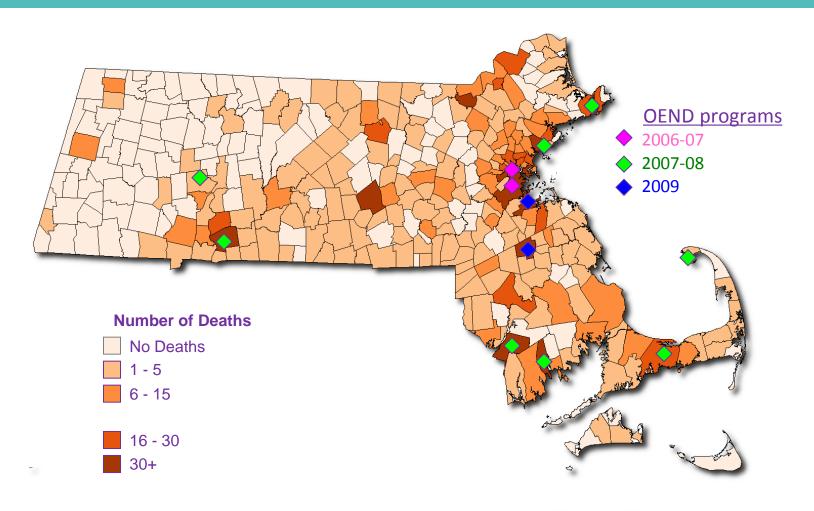
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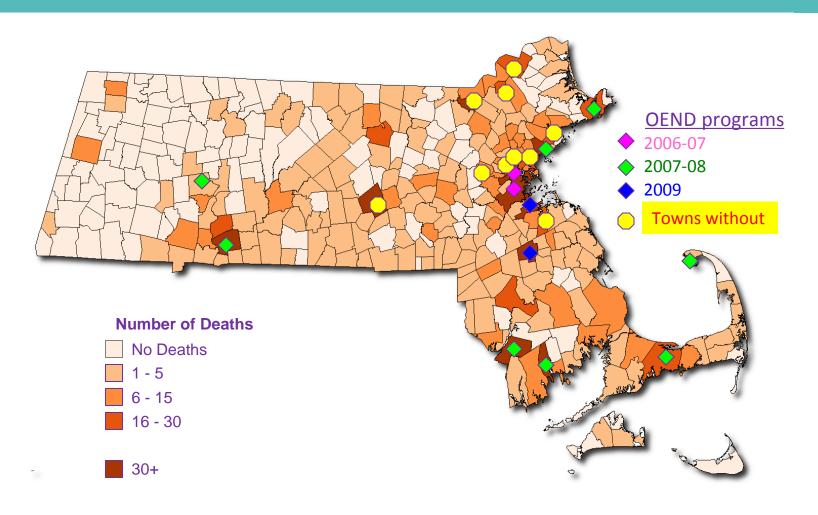
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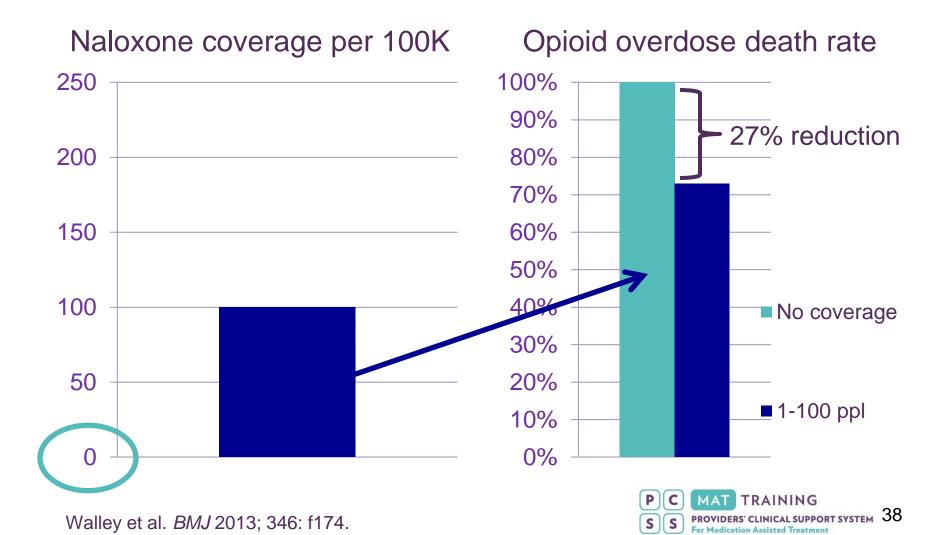
Fatal opioid OD rates by OEND implementation

| Cumulative enrollments per 100k | RR | ARR* | 95% CI |
|---------------------------------|------|------|-----------|
| Absolute model: | | | |
| No enrollment | Ref | Ref | Ref |
| Low implementation: 1-100 | 0.93 | 0.73 | 0.57-0.91 |
| High implementation: > 100 | 0.82 | 0.54 | 0.39-0.76 |

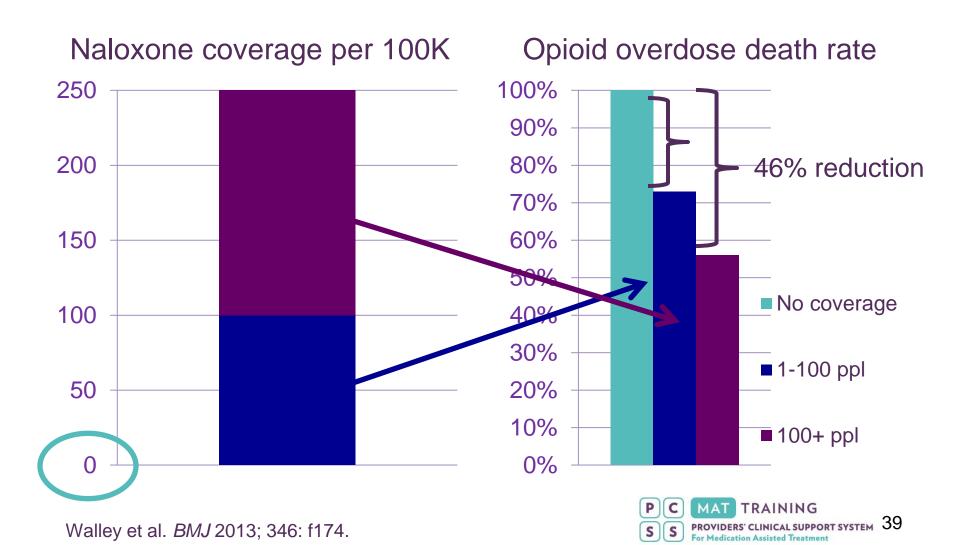
^{*} Adjusted Rate Ratios (ARR) All rate ratios adjusted for the city/town population rates of age under 18, male, race/ ethnicity (hispanic, white, black, other), below poverty level, medically supervised inpatient withdrawal treatment, methadone treatment, BSAS-funded buprenorphine treatment, prescriptions to doctor shoppers, and year

Walley et al. BMJ 2013; 346: f174.

Fatal opioid OD rates by OEND implementation



Fatal opioid OD rates by OEND implementation



Opioid-related ED visits and hospitalization rates by OEND implementation

| Cumulative enrollments per 100k | RR | ARR* | 95% CI |
|---------------------------------|------|------|-----------|
| Absolute model: | | | |
| No enrollment | Ref | Ref | Ref |
| Low implementation: 1-100 | 1.00 | 0.93 | 0.80-1.08 |
| High implementation: > 100 | 1.06 | 0.92 | 0.75-1.13 |

^{*} Adjusted Rate Ratios (ARR) All rate ratios adjusted for the city/town population rates of age under 18, male, race/ ethnicity (hispanic, white, black, other), below poverty level, medically supervised inpatient withdrawal treatment, methadone treatment, BSAS-funded buprenorphine treatment, prescriptions to doctor shoppers, and year

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INPEDE OD Study Summary

 Fatal opioid overdose rates were decreased in MA cities-towns where OEND was implemented and the more enrollment the lower the reduction

2. No clear impact on acute care utilization

Venues and Models

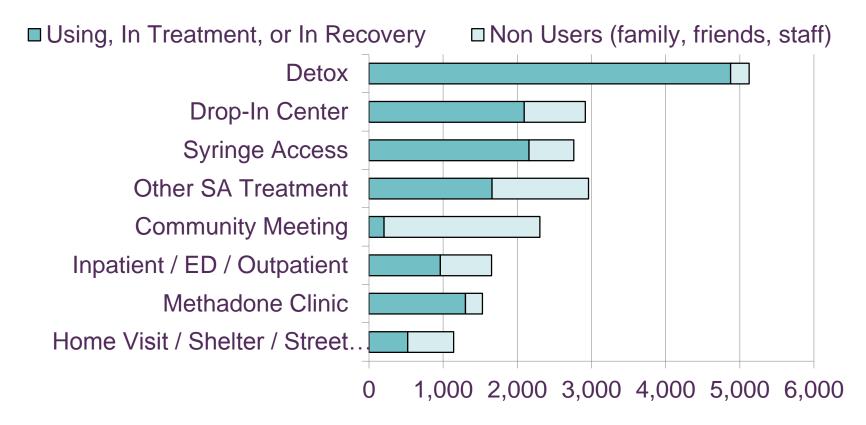








Massachusetts DPH program Enrollment venues: 2008-2013



Data from people with location reported: Users:13,775 Non-Users: 6,618

Program data



Implementing OEND in MMT and detox

| Model | Advantages | Disadvantages |
|--|--|--|
| Staff provide OEND on-site | Good access to OENDOD prevention integrated | Patients may not disclose risk |
| 2. Outside staff provide OEND on-site | OD prevention integratedInteragency cooperationLow burden on staff | Community OEND program needed |
| 3. OE provided onsite, naloxone received offsite | OD prevention integratedInteragency cooperation | Increased patient burden to get naloxone |
| 4. Outside staff recruit near MMT or detox | Confidential access to OD prevention | OD prevention not re- enforced in treatmentNot all patients reached |

Don't forget the staff: Among 29 MMT and 93 detox staff who received OEND, 38% and 45% respectively reported witnessing and overdose in their lifetime.

Other venues and models

- First responder police and fire
- Emergency Department (ED) SBIRT
- Post-incarceration
- Prescription naloxone
 - Prescribetoprevent.org

How do you incorporate overdose education and naloxone rescue kits into medical practice?

- 1. Prescribe naloxone rescue kits
 - PrescribeToPrevent.org
- 2. Work with your OEND program





Overdose Education in Medical Practice

Taking a history, assessing patient risk:

- Where is the patient at as far as overdose?
 - Ask your patients whether they have overdosed, witnessed an overdose or received training to prevent, recognize, or respond to an overdose
- Overdose history:
 - 1. Have you ever overdosed?
 - a) What were you taking?
 - b) How did you survive?
 - 2. What strategies do you use to protect yourself from overdose?
 - 3. How many overdoses have you witnessed?
 - a) Were any fatal?
 - b) What did you do?
 - 4. What is your plan if you witness an overdose in the future?
 - a) Have you received a narcan rescue kit?
 - b) Do you feel comfortable using it?

Overdose Education in Medical Practice

What they need to know:

- Prevention the risks:
 - Mixing substances
 - Abstinence- low tolerance
 - Using alone
 - Unknown source
 - Chronic medical disease
 - Long acting opioids last longer
- Recognition
 - Unresponsive to sternal rub with slowed or absent breathing
 - Blue lips, pinpoint pupils
- Response What to do
 - Call for help
 - Rescue breathe
 - Deliver naloxone and wait 3-5 minutes
 - Stay until help arrives

Patient education videos and materials at prescribetoprevent.org

Video by Overdose Prevention Education Network (6min22sec)



Practical Barriers to Prescribing Naloxone

- 1. Prescriber knowledge and comfort
- 2. How to write the prescription?
- 3. Does the pharmacy stock rescue kits?
 - Rescue IN kit with MAD?
 - Rescue IM kit with needle?
 - Work with your pharmacy to get it stocked
- 4. Who pays for it?
 - Medicaid in Massachusetts covers naloxone and gives an extra \$4.15 dispensing fee when the atomizer is included in the kit, because insurance will not cover it directly
 - The MAD costs \$3-4 each>> \$6-8 per kit
 - Work with your pharmacy to see if they will cover it

Legal Barriers to Prescription Model

- "Prescribing naloxone in the USA is fully consistent with state and federal laws regulating drug prescribing. The risks of malpractice liability are consistent with those generally associated with providing healthcare, and can be further minimized by following simple guidelines presented."
- 1. Only prescribe to a person who is at risk for overdose
- Ensure that the patient is properly instructed in the administration and risks of naloxone

Burris S at al. "Legal aspects of providing naloxone to heroin users in the United States. Int J of Drug Policy 2001: 12; 237-248.

Example of overdose-naloxone law: Good Sam, limited liability for patients/prescibers and 3rd party prescribing

Good Samaritan provision:

- Protects people who overdose or seek help for someone overdosing from being charged or prosecuted for drug possession
 - Protection does not extend to trafficking or distribution charges

Patient protection:

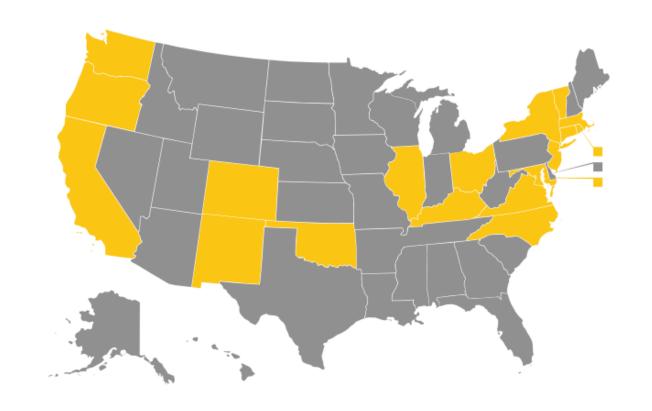
•A person acting in good faith may <u>receive a naloxone prescription, possess</u> <u>naloxone and administer naloxone</u> to an individual appearing to experience an opiate-related overdose.

Prescriber protection:

•Naloxone or other opioid antagonist <u>may lawfully be prescribed and dispensed to a person at risk of experiencing an opiate-related overdose or a family member, friend or other person in a position to assist a person at risk of experiencing an opiate-related overdose. For purposes of this chapter and chapter 112, any such prescription shall be regarded as being issued for a legitimate medical purpose in the usual course of professional practice.</u>

Massachusetts - Passed in August 2012: An Act Relative to Sentencing and Improving Law Enforcement Tools

States with naloxone laws - 2014



Network for Public Health Law www.networkforphl.org

Prescribetoprevent.org

How to Avoid Overdose - Call a doctor if Dispose of unused Naloxone for Overdose Prevention your pain gets worse medications · Only take medicine Never mix pain meds Store your medicine to an overdose with alcohol in a secure place prescribed to you Avoid sleeping pills · Learn how to use Don't take more than when taking pain meds naloxone patient name instructed Are they breathing? --- Call 911 for help date of birth Signs of an overdose. Slow or shallow breathing All you have to say: Gasping for air when sleeping or weird snoring "Someone is unresponsive and not breathing Pale or blutsh skin Give clear address and location . Slow heartbeat, low blood pressure . Won't wake up or respond (rub knuckles on stemum) patient city, state, ZIP code Airway Make sure nothing is inside the person's mouth. Prepare Naloxone Are they any better? Can you get naloxone and prepare it quickly enough that they won't go for too long without your breathing assistance? Naloxone HCl 1 mg/mL 2 x 2 mL as pre-filleld Luer-Lock needless syringe Pull or pry off yellow caps (NDC 0548-3369-00) Refills: 2 x Intranasal Mucosal Atomizing Device (MAD 300) Refills: For suspected opioid overdose, spray 1mL in each nostril. Repeat after 3 minutes if no or minimal response. Pharmacist: Call 1-800-788-7999 to order MAD 300. Evaluate + support Give another 2 sprays of naloxone in 3 minutes if no or minimal breathing or responsiveness Naloxone wears off in 30-90 minutes . Comfort them; with drawal can be unpleasant . Get them medical care and help them not use more opiate right away . Encourage survivors to seek treatment if they feel they have a problem

Rescue breathing

Oxygen saves lives. Breathe for them. One hand on chin, tilt head back, pinch nose closed. Make a seal over mouth & breathe in 1 breath every 5 seconds Chest should rise, not stomach

· Teach your family +

friends how to respond

Prescribetoprevent.org

Naloxone for Overdose Prevention patient address prescriber city, state, ZIP code prescriber phone number Naloxone HCI 0.4 mg/mL (Narcan) 1 x 10 mL as one fliptop vial (NDC 0409-1219-01) OR 2 x 1mL single dose vials (NDC 0409-1215-01) Refills: ____ Intramuscular (IM) syringe, 23 G, 3cc, 1 inch Refills: Sig: For suspected opioid overdose, inject 1mL IM in shoulder or thigh. Repeat after 3 minutes if no or minimal response. prescriber signature



Are they breathing? Signs of an overdose

- Slow or shallow breathing
- Gasping for air when sleeping or weird snoring
- Pale or blutsh skin
- · Slow heartbeat, low blood pressure
- Won't wake up or respond (rub knuckles on stemum)



Call 911 for help

All you have to say:

"Someone is unresponsive and not breathing." Give clear address and location.



Airway

Make sure nothing is inside the person's mouth.



Rescue breathing

One hand on chin, tilt head back, pinch nose closed. Make a seal over mouth & breathe in 1 breath every 5 seconds

Chest should rise, not stomach



Evaluate

Are they any better? Can you get naloxone and prepare it quickly enough that they won't go for too long without your breathing assistance?

Prepare naloxone

- Remove cap from naloxone and uncover needle
- Insert needle through rubber plug, with bottle upside down
- Pull back on plunger and take up 1 cc into the syringe
- Don't worry about air bubbles (they aren't dangerous in muscle injections)



Muscular injection

inject 1cc of naloxone into a big muscle (shoulder orthigh)

For More Info PrescribeToPrevent.com

How to Avoid Overdose

Only take medicine

prescribed to you

· Don't take more than

instructed

· Call a doctor if

your pain gets worse

Never mix pain meds

with alcohol · Avoid sleeping pills

when taking pain meds · Dispose of unused

medications

Store your medicine

in a secure place

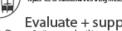
· Learn how to use

naloxone

· Teach your family +

friends how to respond

to an overdose



Evaluate + support Continue rescue breathing

- Give another shot of naloxone in 3 minutes if no or minimal breathing or responsiveness
- Nalozone wears off in 30-90 minutes
- Comfort them; withdrawal can be unpleasant
- Get them medical care and help them not use more opiate right away
- . Encourage survivors to seek treatment if they feel they have a problem

Poison Center 1-800-222-1222 (free & anonymous)

v01.2012.1







Nasal administration

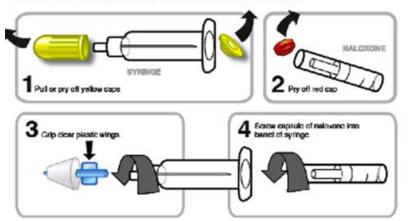
Pro

- 1st line for some local EMS
- RCTs: slower onset of action but milder withdrawal
- Acceptable to non-users
- No needle stick risk
- No disposal concerns

Con

- Not FDA approved
- No large RCT
- Assembly required, subject to breakage
- High cost:
 - \$40-50+ per kit

HOW TO GIVE NASAL SPRAY NARCAN





- Age 18, an accomplished athlete with collegiate prospects
 - When she tore her ACL she was prescribed opioids after surgery
 - Developed opioid addiction by 6 months
 - Age 20, injection heroin daily, out of college
- Ages 20-26, multiple detox and residential programs
 - Not able to sustain >3 months without relapse
- Age 26, pregnant at her last detox and transferred to methadone
 - Able to stop using heroin, engage in 12-step
 - Delivered a healthy baby, breastfed, retained custody
- Age 28, she tapered off of methadone clinic
 - Wanted more time with the baby and to try to work
 - Boyfriend incarcerated for selling drugs
 - Relapsed, lost custody, now seeking treatment with buprenorphine

Age 18, an accomplished athlete with collegiate prospects

Counseled about the risks of overdose, addiction, and safe storage Prescribed naloxone rescue kit when daily morphine equivalent > 50

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Started tester shots; respecting her tolerance at each relapse - Rescued boyfriend x2

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Overdose prevention education during orientation

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 - Wanted more time with the baby and to try to work

Overdose prevention education and rescue kit part of her taper and discharge plan

Relapsed, lost custody, now seeking treatment with buprenorphine

- Age 29-30: Buprenorphine treatment is started and the patient responds well
 - Regular clinic visits with urine tox only positive for buprenorphine
 - Re-engages in 12-step program and her family
 - Works with child protection to regain custody

Age 29-30: Buprenorphine treatment is started and the patient responds well

Overdose prevention education and naloxone kit part of her orientation

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Age 29-30: Buprenorphine treatment is started and the patient responds well

Overdose prevention education and naloxone kit part of her orientation

- Re-engages in 12-step program and her family
- Works with child protection to regain custody
- Age 30: Continues in her recovery despite BF's relapse and overdose
 - Her boyfriend had been released from jail and returned to stay with her
 - He relapsed and overdose on heroin on the 3rd night,
 - She called 911, started rescue breathing, and administered one dose of nasal naloxone. He was transported, observed and transferred to a residential program for formerly incarcerated with drug problems
 - Police and EMS praised her for her response: "It saved his life"
 - She called her buprenorphine program counselor and went to group counseling that week where she received support

Age 29-30: Buprenorphine treatment is started and the patient responds well

OD prevention education and naloxone kit part of her orientation

- Re-engages in 12-step program and her family
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 - Police and EMS praised her for her response: "It saved his life"
 - She called her buprenorphine program counselor and went to group counseling that week where she received support

And she lived happily ever after!!!

Educational Objectives

- At the conclusion of this activity participants should be able to:
 - Explain the epidemiology of overdose
 - Explain the rationale for and scope of overdose education and naloxone distribution (OEND) programs
 - Incorporate OEND into medication-assisted treatment settings
 - Educate patients about overdose risk reduction
 - Prescribe naloxone rescue kits

Helpful websites....

For prescribers and pharmacists

Prescribetoprevent.org

News + research on overdose prevention

Overdosepreventionalliance.org

International overdose prevention efforts

Naloxoneinfo.org

Opioid overdose prevention education

Stopoverdose.org

Family support

Learn2cope.org

Legal interventions

 www.networkforphl.org/ asset/qz5pvn/networknaloxone-10-4.pdf

Project manual

 harmreduction.org/wp-content/uploads/2012/11/odmanual-final-links.pdf

2013 National Drug Control Strategy

www.whitehouse.gov/ondcp/2013-national-drugcontrol-strategy

ASAM 2010 Policy Statement

 www.asam.org/docs/publicy-policystatements/1naloxone-1-10.pdf

SAMHSA toolkit

 store.samhsa.gov/product/Opioid-Overdose-Prevention-Toolkit/SMA13-4742

SAMHSA Letter to prescribers

www.dpt.samhsa.gov/pdf/dearColleague/SAMHSA_fentanyl_508.pdf

Coalition Against Insurance Fraud. Rx for Peril

www.insurancefraud.org/downloads/drugDiversion.pdf

References

- Albert et al. 2011. Project Lazarus: community-based overdose prevention in rural North Carolina. Pain Medicine 12:S77-S85.
- Bennett et al. 2011. Characteristics of an overdose prevention, response, and naloxone distribution program in Pittsburgh and Allegheny County, Pennsylvania. J Urban Health. 88:1020-30.
- Burris S at al. 2001. Legal aspects of providing naloxone to heroin users in the United States Int J of Drug Policy 12:237-248.
- Clausen et al. 2009. Mortality among opiate users: opioid maintenance therapy, age and causes of death. Addiction 104:1356-62.
- Coffin and Sullivan. 2013. Cost-effectiveness of distributing naloxone to heroin users for lay overdose reversal. Ann Intern Med. 158:1-9.
- Doe-Simkins et al. 2009. Saved by the nose: bystander-administered intranasal naloxone hydrochloride for opioid overdose. Am J Public Health 99: 788-791.
- Doe-Simkins M et al. 2014. Overdose rescues by trained and untrained participants and change in opioid use among substance-using participants in overdose education and naloxone distribution programs: a retrospective cohort study. BMC Public Health 14: 297.
- Enteen et al. 2010. Overdose prevention and naloxone prescription for opioid users in San Francisco. J Urban Health 87:931-41.
- Evans et al. 2012. Mortality among young injection drug users in San Francisco: a 10-year follow-up of the UFO study. Am J Epidemiol 174:302-8
- Gray and Hagemeier. 2012. Prescription drug abuse and DEA-sanctioned drug take-back events: characteristics and outcomes in rural Appalachia. JAMA Intern Med 72:1186-7.
- Green et al. 2008. Distinguishing signs of opioid overdose and indication for naloxone: an evaluation of six overdose training and naloxone distribution programs in the United States. Addiction 103:979-89.

References

- Inocencio TJ et al. 2013. The economic burden of opioid-related poisoning in the United States. Pain Medicine 14:1534-47.
- Marshall et al. 2011. Reduction in overdose mortality after the opening of North America's first medically supervised safer injecting facility: a retrospective population-based study. Lancet 377:1429-37.
- Maxwell et al. 2006. Prescribing naloxone to actively injecting heroin users: a program to reduce heroin overdose deaths. J Addict Dis 25:89-96.
- Paulozzi et al. 2011. Prescription drug monitoring programs and death rates from drug overdose. Pain Medicine 12:747-54.
- Piper et al. 2008. Evaluation of a naloxone distribution and administration program in New York City. Subst Use Misuse 43:858-70.
- Seal et al. 2005. Naloxone distribution and cardiopulmonary resuscitation training for injection drug users to prevent heroin overdose death: a pilot intervention study. J Urban Health 82:303-11.
- Tobin et al. 2009. Evaluation of the Staying Alive programme: training injection drug users to properly administer naloxone and save lives. Int J Drug Policy 20:131-6.
- Wagner et al. 2010 Evaluation of an overdose prevention and response training programme for injection drug users in the Skid Row area of Los Angeles, CA. Int J Drug Policy 21:186-93.
- Walley et al. 2013. Opioid overdose prevention with intranasal naloxone among people who take methadone. JSAT 44:241-7.
- Walley et al. 2013. Opioid overdose rates and implementation of overdose education and nasal naloxone distribution in Massachusetts: interrupted time series analysis. BMJ 346:f174.
- Wheeler E et al. 2012. Community-based opioid overdose prevention programs providing naloxone -United States, 2010.Morb Mortal Wkly Rep 61:101-5.



PCSSMAT is a collaborative effort led by American Academy of Addiction Psychiatry (AAAP) in partnership with: American Osteopathic Academy of Addiction Medicine (AOAAM), American Psychiatric Association (APA) and American Society of Addiction Medicine (ASAM).

For More Information: www.pcssmat.org



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